

**REMARKS**

The present communication is responsive to the Final Office Action mailed May 30, 2003.

Applicants note with appreciation the telephonic interview of August 6, 2003, between the Examiner and the undersigned regarding the Final Office Action.

Claims 1-15 and 18-20 are currently pending in the application. Of the pending claims, claims 1, 4 and 18 are independent claims.

Claim 1 has been amended to now recite "a segmenting-range setting unit coupled to said level segmenting unit for calibrating a range associated with the plurality of levels into which the analog signal is segmented by said level segmenting unit." Claim 4 has been amended to recite "a segmenting-range setting unit for calibrating the range over which said level segmenting unit segments the analog output signal into one of the plurality of levels."

Claims 16 and 17 have been cancelled.

Claims 18, 19 and 20 are presented for the first time. Claim 18 is directed to a method for adjusting an output signal from a control apparatus having a pressure sensitive device, comprising "detecting an analog signal corresponding to a load exerted on the pressure sensitive device; establishing a range based on upper and lower signal levels of said detected analog signal; and segmenting the detected analog signal into a plurality of signal levels within said range, whereby said signal output of the control apparatus is adjusted." Claims 19 and 20 depend from claim 18 and claim additional features of applicants' invention. Antecedent basis for these claims may be found throughout the

written description and appropriate drawings. For example, exemplary embodiments are described on pg. 16, lns. 14-17 and pg. 37, ln. 9 to pg. 39, ln. 5. Accordingly, claims 18 through 20 do not add new matter to the application.

In the Final Office Action, the Examiner rejected claims 1 through 15 under 35 U.S.C. §103(a). In particular, the Examiner rejected claims 1 and 4 under §103(a) as being unpatentable over U.S. Patent No. 5,485,171 to Copper et al. (hereinafter "Copper"). The Examiner stated that Copper "teaches a control apparatus (1) comprising a controller (3) which can be pressed and operated (see column 5, lines 50-53), a detecting device (transducer, 15) for outputting an analog signal corresponding to the pressing operation of the controller, an A/D converting unit for converting the segmented analog signal into a digital signal in accordance with the one of plurality of levels (see column 9, lines 43-51)."

The Examiner also asserted that Copper teaches a segmenting-range unit by citing "column [9,] line 61 - column 10, line 5" of Copper. On the other hand, the Examiner stated that "Copper et al. fails to specifically teach the usage of a level segmenting unit or a segmenting-range unit, however does teach a variance in voltage as related to applied pressure and as set voltage range between 0 V and a maximum voltage determined by circuit parameters." In any event, the Examiner concluded it would have been obvious to include a level segmenting unit and a segmenting-range unit in the device of Copper.

Applicants agree with the Examiner that Copper fails to teach or disclose a level segmenting unit or a segmenting

range unit. In fact, applicants respectfully submit that Copper does not suggest the use of a level segmenting unit or a segmenting range unit at all. However, even assuming *arguendo* that Copper did suggest the use of a level segmenting unit or a segmenting range unit, Copper clearly does not include any suggestion of "a segmenting-range setting unit . . . for calibrating a range associated with the plurality of levels into which the analog signal is segmented by said level segmenting unit" as is now recited in claim 1. In addition, Copper does not suggest "a segmenting-range setting unit for calibrating the range over which said level segmenting unit segments the analog output signal into one of the plurality of levels" as is now recited in claim 4. With regard to newly presented claim 18, Copper also does not suggest "detecting an analog signal corresponding to a load exerted on the pressure sensitive device; establishing a range based on upper and lower signal levels of said detected analog signal; and segmenting the detected analog signal into a plurality of signal levels within said range, whereby said signal output of the control apparatus is adjusted." Such is the case because Copper uses the signal levels that are produced by the transducer 15 without any calibration. (Copper, col. 9, ln. 59 to col. 10, ln. 33.) Thus, claims 1, 4 and 18 are clearly distinguishable over Copper and Copper, therefore, does not provide a basis for obviating these claims.

In addition, because all the other claims pending in the application depend from one of claims 1, 4 or 18, Copper likewise cannot provide a basis for obviating these claims.

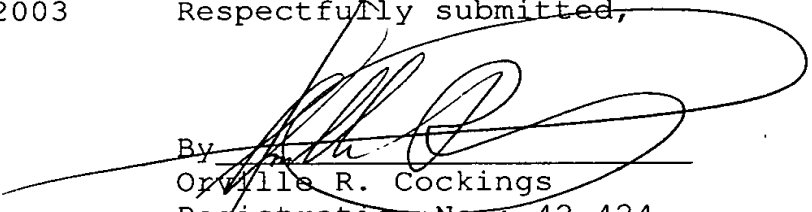
Furthermore, with regard to claims 2, 5, 10-13 and 15, the Examiner stated that these claims were obvious over Copper in view of U.S. Patent No. 6,208,271 to Armstrong (hereinafter "Armstrong"). However, Armstrong does not include any teaching or suggestion of a structure or method relating to calibration as is recited in claims 1, 4 and 18. Thus, the combination of Armstrong and Copper cannot be combined in anyway to obviate any of the pending claims, namely, claims 1 through 15 and 18 through 20.

In view of the foregoing, applicants earnestly request favorable reconsideration and allowance of claims 1 through 15 and 18 and 20. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 20, 2003

Respectfully submitted,

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